

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Andriessen) Attorney reference: 27500-72
)
Serial No.: Unknown) Examiner: Unknown
)
Filing Date: Attached) Art Unit: Unknown
)
Title: Preparation Of ZnS Particles)
Doped With Copper)

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

Dear Sir:

The following amendment and remarks are submitted prior to counting the claims.

In the Claims:

Please amend claims 3, 5 and 7 in accordance with the instructions provided in Appendix A.

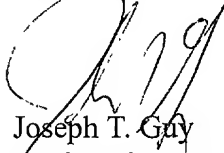
Please enter claims 8-29 in accordance with the instructions provided in Appendix A.

An unmarked copy of the claims is provided in Appendix B.

REMARKS

Claim amendments are entered to insure proper dependency.

Respectfully submitted,



Joseph T. Guy

Registration No. 35,172

Agent for Applicant

NEXSEN PRUET JACOBS & POLLARD, LLC

201 West McBee Avenue

Suite 400

Greenville, SC 29601

Telephone: 864-370-2211

Facsimile: 864-282-1177

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APPENDIX A -Claim Amendments

Please amend claims 3, 5 and 7 in accordance with the following instructions.

3.(Amended) A method according to claim 1 [or 2] wherein said copper ions are copper (I) ions.

5.(Amended) A method according to any of [claims 1 to 4] claim 1 further comprising the step of
subjecting the mixture formed by said precipitation step to a diafiltration and/or
ultrafiltration treatment.

7.(Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer
containing ZnS:Cu particles prepared by a method according to [any of the previous
claims] claim 1.

Please enter claims 8-29 as indicated.

8.(New) A method according to claim 2 wherein said copper ions are copper (I) ions.

9.(New) A method according to claim 8 wherein said copper (I) ions are incorporated as
copper (I) chloride.

10.(New) A method according to any of claim 2 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

11.(New) A method according to claim 10 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

12.(New) A method according to any of claim 3 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

13.(New) A method according to claim 12 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

14.(New) A method according to any of claim 4 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

15.(New) A method according to claim 14 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

- 16.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 2.
- 17.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 3.
- 18.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 4.
- 19.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 5.
- 20.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 6.
- 21.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 7.
- 22.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 8.
- 23.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 9.

- 24.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 10.
- 25.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 11.
- 26.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 12.
- 27.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 13.
- 28.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 14.
- 29.(New) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 15.

APPENDIX B - Unmarked Claims As Amended Or Newly Entered

1. A method for the preparation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper ions, dissolved in several aqueous solutions.
2. A method according to claim 1 wherein said precipitation is performed according to the double jet principle, whereby a first solution containing said zinc salt and said citrate or EDTA complex of copper ions, and a second solution containing said sulfide are added simultaneously to a third solution.
3. A method according to claim 1 wherein said copper ions are copper (I) ions.
4. A method according to claim 3 wherein said copper (I) ions are incorporated as copper (I) chloride.
5. A method according to any of claim 1 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.
6. A method according to claim 5 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

7. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 1.
8. A method according to claim 2 wherein said copper ions are copper (I) ions.
9. A method according to claim 8 wherein said copper (I) ions are incorporated as copper (I) chloride.
10. A method according to any of claim 2 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.
11. A method according to claim 10 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.
12. A method according to any of claim 3 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.
13. A method according to claim 12 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.
14. A method according to any of claim 4 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

15. A method according to claim 14 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.
16. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 2.
17. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 3.
18. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 4.
19. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 5.
20. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 6.
21. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 7.
22. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 8.

23. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 9.
24. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 10.
25. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 11.
26. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 12.
27. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 13.
28. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 14.
29. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 15.